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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

SUBJECT: No. Penn No. 12: Samples & Analysis Plan **DATE:** 6-23-94

FROM: Robert S. Davis, RSD Coordinator
Biological Technical Assistance Group

TO: Patrick M. McManus, RPM (3HW21)
Southeastern Pennsylvania Section

BTAG has reviewed the sampling and analysis plan and offers the comments below on behalf of the FWS and EPA members.

(p2-7) Contaminants, nature, extent, and movement of groundwater are important, but we suggested previously that flow direction and velocity may also be important. If it is decided that pump and treat is the alternative of choice, then a potential exists for net loss of wetlands due to lowered groundwater tables.

The plan should include wetland and seep location and characteristics (e.g., size and functional value of wetlands; flow, velocity, relationships to seeps and the contamination of seeps).

Stream Sampling Locations:

(p2-11) We do not recommend sampling streams and zones of deposition within a short period of significant rainfall unless some mitigating reason is offered (e.g., streams are truly intermittent; see discussion below under methods). Sampling should be done at times of moderate or equilibrated flow so that samples are not represented of extreme conditions.

- We agree with location 1.

- Location 2 (the sampling location in the pond) should be selected carefully so that the depositional zone is properly located. This may, for example, require characterization of the pond's physical benthic environment to ascertain correct location.

- The location at this wetlands, as acknowledged, should be determined in conjunction with BTAG responsibilities. The stream and wetlands sampling at this location may be difficult in light of the stream's flow, as multiple

channels may have developed over the years. This often happens with streams that are truly intermittent, but is unusual in wetland situations.

- We agree with location 4, but caution that positive contaminant results may lead to additional sampling recommendations. If contamination is recorded, then the extent of contamination is likely to be farther downstream.

Methods

Why are intermittent conditions used as a rationale for dropping flow as a measurement parameter? Perhaps a more philosophical question is definition of an intermittent stream. We believe that biology in conjunction with flow regime and descriptions should be used. The chemical analytical methods used should be comparable to SW846 so that reasonably low concentrations have a good chance of being identified at low levels. As you know, we use very low eco-toxicological values in addressing potential for risk.

Lastly, soils classification should be checked with the county agent. Furthermore, an effort should be made to use the most compatible methods for all disciplines involved, i.e., soil scientists take an more ecological view than do engineers, for example.

Than you for the opportunity to offer these comments and if you have any questions, please do not hesitate to contact me.